ARTIFACT SHEET

Enter artifact number below. Artifact number is application number +
artifact type code (see list below) + sequential letter (A, B, C ...). The first
artifact folder for an artifact type receives the letter A, the second B, etc..
Examples: 59123456PA, 59123456PB, 59123456ZA, 59123456ZB

_____09996967 ZA_____

Indicate quantity of a single type of artifact received but not scanned. Create
individual artifact folder/box and artifact number for each Artifact Type.

☐ CD(s) containing:
    computer program listing
    Doc Code: Computer   ☐ Artifact Type Code: P
    pages of specification
    and/or sequence listing   ☐
    and/or table
    Doc Code: Artifact   Artifact Type Code: S
    content unspecified or combined   ☐
    Doc Code: Artifact   Artifact Type Code: U

☐ Stapled Set(s) Color Documents or B/W Photographs
    Doc Code: Artifact   Artifact Type Code: C

☐ Microfilm(s)
    Doc Code: Artifact   Artifact Type Code: F

☐ Video tape(s)
    Doc Code: Artifact   Artifact Type Code: V

☐ Model(s)
    Doc Code: Artifact   Artifact Type Code: M

☐ Bound Document(s)
    Doc Code: Artifact   Artifact Type Code: B

☐ Confidential Information Disclosure Statement or Other Documents
    marked Proprietary, Trade Secrets, Subject to Protective Order,
    Material Submitted under MPEP 724.02, etc.
    Doc Code: Artifact   Artifact Type Code X

☒ Other, description: _____U. S. Priority Document_____
    Doc Code: Artifact   Artifact Type Code: Z

March 8, 2004

The Commissioner of
Patents and Trademarks

JC057 U.S. PTO
09/996967
11/27/01

*The
United
States
of
America*

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extension.

Commissioner of Patents and Trademarks

Attest

United States Patent [19]

Suggs

[54] **MULTI-RESOLUTION COLOR CONTACT-TYPE IMAGE SENSING APPARATUS**

[75] Inventor: Bradley Suggs. Sunnyvale. Calif.

[73] Assignee: Hewlett-Packard Company. Palo Alto. Calif.

[21] Appl. No.: 08/959,062

[22] Filed: Oct. 28, 1997

[51] Int. Cl.^{6} G06K 7/00

[52] U.S. Cl. 382/312; 348/302

[58] Field of Search 382/312; 358/483; 348/302, 315

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,204,230	5/1980	Sprague	358/213
4,725,889	2/1988	Yaniv et al.	358/285
4,782,399	11/1988	Sato	358/280
4,853,785	8/1989	Ovshinsky et al.	358/213.11
5,264,939	11/1993	Chang	358/213.22

Primary Examiner—Jose L. Couso
Assistant Examiner—Anh Hong Do

Attorney, Agent, or Firm—Jeffrey D. Wheeler

[57] **ABSTRACT**

A multi-resolution color contact-type image sensing apparatus whereby a color image of an original can be obtained with a particular resolution, depending upon the size of the original image. A first array of photosensor segments with a base resolution is arranged with at least one other array of photosensor segments having a greater-than-base resolution. All such photosensor segments might aligned in a single linear array, with at least one portion of segments having a greater-than-base resolution. A resulting image with at least the base resolution could be created depending upon the size of the original in relation to the placement and width of the greater-than-base resolution segments. A plurality of linear arrays might also be used, with each successive array having a greater resolution than the previous array. Moreover, the arrays might be arranged in parallel with each successive array being narrower in width than the previous. Each linear array could be operated independently or in conjunction with the other linear arrays to produce multi-resolution resulting images. The resolution could be manually or automatically selected.

20 Claims, 3 Drawing Sheets